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ADMITTED TO PRACTICE IN:
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Arizona Corporation Commission
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JAN 17 2012
DOCKETED BY

January 12, 2012

Docket Control
Arizona Corporation Commission
1200 West Washington
Phoenix, Arizona 85007

Re: Willow Springs Utilities, LLC
Docket No. WS-20432A-05-0874
Decision No. 72011 Compliance Filing

To Whom It May Concern:

Enclosed for filing in connection with the above-referenced matter are fourteen (14) copies of a March 16, 2011 Aquifer Protection Permit ("APP"), as granted by the Arizona Department of Environmental Quality for the Willow Springs Water Reclamation Facility. This filing is made in connection with First Ordering Paragraph of Decision No. 72011. Through inadvertence, copies of the APP were not previously filed with the Commission.

In addition to the foregoing, please change the Commission's records to indicate the following day-to-day contact information for Willow Springs Utilities, LLC:

Kevin Tarbox, Senior Vice President
Lennar Arizona, Inc.
3275 West Ina Road, Suite 275
Tucson, AZ 85741
Direct Phone: (520) 618-4127
Fax: (520) 747-0989
Email: kevin.tarbox@lennar.com

With respect to legal and regulatory matters, the company's contact information (in addition to Mr. Tarbox) continues to be as follows:

Lawrence V. Robertson, Jr.
P. O. Box 1448
2247 E. Frontage Road, Suite 1
Tubac, Arizona 85646
Phone: (520) 398-0411
Fax: (520) 398-0412
Email: Tubaclawyer@aol.com

Thank you in advance for your assistance. Please let me know if you have any questions with respect to this matter.

Sincerely,

Lawrence V. Robertson, Jr.

CC: Kimberly Battista, Compliance Section
Carmel Hood, Compliance Section
Kevin Tarbox

PHOENIX OFFICE: 2398 E. CAMELBACK RD., STE 240, PHOENIX AZ 85016 PH: (602) 358-7348 FAX: (620) 441-2779

TUCSON OFFICE: 333 N. WILMOT RD, STE 300, TUCSON AZ 85711 PH: (520) 721-1900 FAX: (520) 747-1550

Janice K. Brewer
Governor

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

1110 West Washington Street, Phoenix, Arizona 85007
(602) 771-2300 www.azdeq.gov

Henry R. Darwin
Director

March 16, 2011

Mr. Kevin Tarbox (Manager)
Willow Springs Utilities, LLC
3275 West Ina Road, Suite #275
Tucson, AZ - 85741

Re: Willow Springs Water Reclamation Facility (WRF)
Aquifer Protection Permit (APP), Inventory No. 105855, LTF No. 43128

Dear Mr. Tarbox:

Enclosed is a signed copy of an Individual APP with Fact Sheet for the above referenced facility. The permit conditions shall apply from March 15, 2011, which is the date of the Water Quality Division Director's signature, and shall be valid for the life of the facility. Thank you for your cooperation in protecting the water quality of the State of Arizona. If you have any questions, please feel free to contact me by phone at (602) 771-4577, or by email at sk5@azdeq.gov.

Sincerely,

Swathi Kasanneni, APP Project Manager
APP and Reuse Unit
Groundwater Section, Water Quality Division

CERTIFIED MAIL – Return Receipt Required
Attachments: Signed APP and Fact Sheet

cc: Asif Majeed, Manager - APP and Reuse Unit, ADEQ
Lynne Dekarske, Environmental Program Specialist - Groundwater Section, ADEQ
Kathy Boland, Supervisor, Water Quality Compliance Section, Data Unit
Cynthia Campbell, Manager, Water Quality Compliance Section
Kailash Bhatt, supervisor, Water Quality Compliance Section, field Services Unit
Gregory Frech, Field Inspector
Debra Daniel, Manager, Surface Water permit Unit
Marnie Greenbie, Supervisor, Surface Water Permits Unit
Pinal County Development Services Department
Brian P .McBride, P.E., President, McBride Engineering Solutions, Inc.
Tim Leclair, Project Manager, McBride Engineering Solutions, Inc
Shivani Shah, Project Engineer (Final Letter Only)
Jennifer Widlowski, Project Hydrologist (Final Letter Only)
Marcy Mullins, Reuse Program Coordinator (Final Letter Only)

WRR11: 0112

STATE OF ARIZONA
AQUIFER PROTECTION PERMIT NO. P-105855
PLACE ID 126506, LTF 43128

1.0 AUTHORIZATION

In compliance with the provisions of Arizona Revised Statutes (A.R.S.) Title 49, Chapter 2, Articles 1, 2 and 3, Arizona Administrative Code (A.A.C.) Title 18, Chapter 9, Articles 1 and 2, A.A.C. Title 18, Chapter 11, Article 4 and amendments thereto, and the conditions set forth in this permit, Willow Springs Utilities, LLC is hereby authorized to operate the Willow Springs Water Reclamation Facility, located approximately ten miles north-northwest of Oracle Junction, Arizona, in Pinal County, over groundwater of the Tucson Active Management Area (AMA), in Township 08 S, Range 13 E, Section 27 of the Gila and Salt River Baseline and Meridian.

This permit becomes effective on the date of the Water Quality Division Director's signature and shall be valid for the life of the facility (operational, closure, and post-closure periods) unless suspended or revoked pursuant to A.A.C. R18-9-A213. The permittee shall construct, operate and maintain the permitted facilities:

1. Following all the conditions of this permit including the design and operational information documented or referenced below, and
2. Such that Aquifer Water Quality Standards (AWQS) are not violated at the applicable point(s) of compliance (POC) set forth below or if an AWQS for a pollutant has been exceeded in an aquifer at the time of permit issuance, that no additional degradation of the aquifer relative to that pollutant and as determined at the applicable POC occurs as a result of the discharge from the facility.

1.1 PERMITTEE INFORMATION

Facility Name:	Willow Springs Water Reclamation Facility (WRF)
Facility Address:	Located approximately ten miles north-northwest of Oracle Junction, Arizona
County:	Pinal
Permittee:	Willow Springs Utilities, LLC
Permittee Address:	3275 West Ina Road, Suite #275 Tucson, Arizona 85741
Facility Contact:	Chris Hill, Principal, Agua Southwest
Emergency Phone No.:	(520) 904-0741
Latitude/Longitude:	32° 42' 51" N/ 110° 59' 44" W
Legal Description:	Township 08S, Range 13E, Section 27, of the Gila and Salt River Baseline and Meridian

1.2 AUTHORIZING SIGNATURE

Michael A. Fulton, Director
Water Quality Division
Arizona Department of Environmental Quality

Signed this 15th day of March, 2011

2.0 SPECIFIC CONDITIONS [A.R.S. §§ 49-203(4), 49-241(A)]

2.1 Facility / Site Description [A.R.S. § 49-243(K)(8)]

The Willow Springs Utilities, LLC is authorized to operate a 0.1 million gallons per day (mgd) Water Reclamation Facility (WRF). The WRF will be constructed in three phases, yielding a total build-out design of 1.5 mgd. This permit is for phase I only (0.1 mgd). The WRF will treat domestic wastewater using a Membrane Bioreactor (MBR) package plant with an influent pump station, screening, and a basin with aerobic and anoxic zones, a membrane basin for micro filtration, disinfection using an ultraviolet (UV) system, an effluent storage tank, and an effluent pump station. The influent and effluent pump station in Phase I will also be used for Phases II and III plant with additional pump upgrades. The storage tank will also be used in the Phases II and III expansion. The Phase I plant will cease operation once the Phase II plant is operational. Closure of the Phase I components will be incorporated in the amendment to operate the Phase II plant. Phase I effluent is disposed by reuse under a valid Reclaimed Water Permit and/or discharge to Suffering Wash (DP-6) under a valid AZPDES permit.

ADEQ has reviewed and approved the treatment and disposal capacity for Phase II (1.0 mgd) and Phase III (1.5 mgd). Additional flows up to 1.5 mgd may be added under an other amendment, as long as additional phases are constructed per the currently approved design plans submitted with this APP application, and there is no change to the method of disposal.

Increase of flow to 1.0 mgd

The permittee may increase flow to 1.0 mgd by submitting an application for an "other" amendment consisting of revised figures for financial capability and a demonstration of financial assurance based on the revised figures.

The 1.0 mgd plant will have two identical 0.5 mgd treatment trains. Each treatment train will consist of a fine screen, a bioreactor tank with pre-anoxic, anoxic and aeration zones, and membrane basins for micro filtration. The effluent will be disinfected through an ultraviolet (UV) system. The effluent will be discharged to an effluent storage tank and then to an effluent pump station for final discharge. The effluent will be reused or discharged to Suffering Wash at DP-5, DP-4, DP-3, and DP-2 instead of DP -6 under a valid AZPDES permit. The sludge will be held in the two sludge holding tanks and will be dewatered through a centrifuge.

Increase of flow to 1.5 mgd

The permittee may increase flow to 1.5 mgd by submitting an "other" amendment application including revised figures for financial capability, and a demonstration of financial assurance based on the revised figures.

The facility will be adding an identical 0.5 mgd treatment train to the 1.0 mgd plant. The new 0.5 mgd treatment train will add a fine screen, a bioreactor tank with pre-anoxic, anoxic and aeration zones, a membrane basin for micro filtration, UV disinfection and an effluent storage tank. One more effluent storage tank will be added at the time of total build-out. The sludge will be held in the sludge holding tank. The facility will continue using the Phase II centrifuge to dewater the sludge. The effluent will be discharged to Suffering Wash at DP-5, DP-4, DP-3, DP-2 and DP-1 under a valid AZPDES permit or reused under a valid reclaimed water permit. The final disposal of sludge will be to the landfill.

The WRF is classified as producing Class A+ reclaimed water pursuant to A.A.C. R 18-11, Article-3. Effluent may also be discharged to Suffering Wash adjacent to the WRF under a valid AZPDES permit at discharge point (DP-6) in quantities which exceed the reuse demand. The sludge will be directly sent to the landfill.

The depth to groundwater at the WRF and near Suffering Wash is estimated at approximately 150 to 200 feet below the surface and the direction of groundwater flow is towards the south. The WRF is designed and constructed according to plans approved by the ADEQ Wastewater, Recharge, & Reuse Unit.

During the initial start-up period, up to 7,500 gpd of influent may be vaulted and hauled under Section 4.1, Table I (Initial Start-Up Plan).

All industrial hookups and other non-residential hookups to the treatment system shall be authorized according to the applicable federal, state or local regulations.

The site includes the following permitted discharging facilities:

Facility	Latitude	Longitude
Willow Springs Water Reclamation Facility	32° 42' 51" N	110° 59' 44" W

Annual Registration Fee [A.R.S. § 49-242]

The Annual Registration Fee for this permit is established by A.R.S. § 49-242(E) and is payable to the Arizona Department of Environmental Quality (ADEQ) each year. The design flow is 0.1 million gallons per day (mgd).

Financial Capability [A.R.S. § 49-243(N) and A.A.C. R18-9-A203]

The permittee has demonstrated financial capability under A.R.S. § 49-243(N) and A.A.C. R18-9-203. The permittee shall maintain financial capability throughout the life of the facility. The estimated dollar amount demonstrated for financial capability is $30,500. The financial capability has been demonstrated through A.A.C. R18-9-A203(C) (5) for 0.1 mgd plant.

2.2 Best Available Demonstrated Control Technology [A.R.S. § 49-243(B) and A.A.C. R18-9-A202(A)(5)]

The Water Reclamation Facility shall be designed, constructed, operated, and maintained to meet the treatment performance criteria for new facilities as specified in A.A.C. R18-9-B204.

The permittee shall meet the requirements for pretreatment by conducting monitoring as per A.A.C. R18-9-B204(B)(6)(b)(iii).

The treatment facility shall not exceed a maximum seepage rate of 550 gallons per day per acre for all containment structures within the treatment works.

2.2.1 Engineering Design

The WRF was designed as per the design report prepared and stamped, dated, and signed (sealed) by Brain P. McBride, P.E. (Professional Engineer), of McBride Engineering Solutions, Inc., dated May 19, 2006, and subsequent sealed submittals that served as additions to the design report.

2.2.2 Site-specific Characteristics

Not applicable.

2.2.3 Pre-operational Requirements

The permittee shall submit a signed, dated, and sealed Engineer's Certificate of Completion in a format approved by the Department per the Compliance Schedule in Section 3.0. During the initial start-up period, the facility may vault and haul up to 7,500 gpd of influent as per Section 4.1, Table-I.

2.2.4 Operational Requirements

1. Permittee shall maintain a copy of the up-to-date Operations and Maintenance Manual at the WRF site at all times and the manual shall be available upon request during inspections by ADEQ personnel.
2. The pollution control structures shall be inspected for the items listed in Section 4.2, Table III - FACILITY INSPECTION (OPERATIONAL MONITORING).
3. If any damage of the pollution control structures is identified during inspection, proper repair procedures shall be performed. All repair procedures and material(s) used shall be documented on the Self-Monitoring Report Form submitted quarterly to the ADEQ Water Quality Compliance Section.

2.2.5 Reclaimed Water Classification [A.A.C. R18-9-703(C)(2)(a), A.A.C. R18-11-303 through 307]

The treatment facility is rated as producing reclaimed water meeting the Class A+ Reclaimed Water Quality Standards (A.A.C. R18-11, Article 3) which may be used for any allowable Class A, B, or C use under a valid reclaimed water permit (A.A.C. R18-9, Article 7).

2.2.6 Certified Areawide Water Quality Management Plan Conformance [A.A.C. R18-9-A201(B)(6)(a)]

Facility operations must conform to the approved Certified Areawide Water Quality Management Plan according to the 208 consistency determination in place at the time of permit issuance.

2.3 Discharge Limitations [A.R.S. §§ 49-201(14), 49-243 and A.A.C. R18-9-A205(B)]

1. The permittee is authorized to operate the WRF with a maximum average monthly flow of 0.1 mgd.
2. The permittee shall notify all users that the materials authorized to be disposed of through the WRF are typical household sewage and pre-treated commercial wastewater and shall not include motor oil, gasoline, paints, varnishes, hazardous wastes, solvents, pesticides, fertilizers or other materials not generally associated with toilet flushing, food preparation, laundry facilities and personal hygiene.
3. The permittee shall operate and maintain all permitted facilities to prevent unauthorized discharges pursuant to A.R.S. § 49-201(12) resulting from failure or bypassing of applicable BADCT pollutant control technologies including , uncontrollable leakage, overtopping (e.g., exceeding the maximum storage capacity, defined as a fluid level exceeding the crest elevation of a permitted impoundment), of basins, lagoons, impoundments or sludge drying beds, berm breaches, accidental spills, or other unauthorized discharges.
4. Specific discharge limitations are listed in Section 4.2, Tables IA and IB.

2.4 Points of Compliance (POCs) [A.R.S. § 49-244]

The Points of Compliance (POCs) are designated in the upper aquifer at the following locations:

[illegible]	[illegible] Description	[illegible]	[illegible]
POC-1	South of DP-001at Suffering Wash	32° 42' 32" N	110° 57' 47" W
POC-2	South of DP-002 at Suffering Wash	32° 42' 39" N	110° 58' 14" W
POC-3	South of DP-003 at Suffering Wash	32° 42' 39" N	110° 58' 30" W
POC-4	South of DP-004 and DP-5 at Suffering Wash	32° 42' 37" N	110° 59' 22" W
POC-5	South of DP-006 at Suffering Wash	32° 42' 29" N	110° 59' 51" W
POC-6	Southeast of the WRF	32° 42' 43" N	110° 59' 50" W

ADEQ has reviewed and approved six POC locations for the entire build-out of 1.5 mgd. The POCs are POC-1, POC-2, POC-3, POC-4, POC-5, and POC-6. POC-4 is included in this permit for conducting ambient

groundwater monitoring. POC-6 is a theoretical point of compliance for the WRF. POC-1, POC-2, POC-3 and POC-5 are future well locations to be installed when flow exceeds 0.25 mgd averaged over a 90 day period at corresponding discharge points. These POC locations will be added based on the addition of additional discharge points.

Ambient groundwater monitoring at POC-4 (upgradient of DP-6) shall be required in accordance with Table II of this permit. The POC well shall be installed in accordance with conditions stated in the Compliance Schedule, Section 3.0.

The Director may amend this permit to require installation of wells and initiation of groundwater monitoring at the POCs or to designate additional POCs, if information on groundwater gradients or groundwater usage indicates the need.

2.5 Monitoring Requirements [A.R.S. § 49-243(K)(1), A.A.C. R18-9-A206(A)]

All monitoring required in this permit shall continue for the duration of the permit, regardless of the status of the facility. All sampling, preservation and holding times shall be in accordance with currently accepted standards of professional practice. Trip blanks, equipment blanks and duplicate samples shall also be obtained, and Chain-of-Custody procedures shall be followed, in accordance with currently accepted standards of professional practice. The permittee shall develop a site-specific Quality Assurance Project Plan (QAPP) which describes the sample collection and analysis procedures to ensure that the result of work performed under this permit will satisfy the data quality objectives of the permit. The permittee shall be responsible for the quality and accuracy of all data required by this permit. If a third party collects or analyzes samples on behalf of the permittee, the permittee shall obtain a copy of the third party site-specific QAPP. The permittee shall consult with the most recent version of the ADEQ Quality Assurance Program Plan and Title 40, PART 136 of the Environmental Protection Agency's Code of Federal Regulations (CFR) for guidance in this regard. Copies of laboratory analyses and Chain-of-Custody forms shall be maintained at the permitted facility. Upon Request, these documents shall be made immediately available for review by ADEQ personnel.

2.5.1 Pre-operational Monitoring

During the initial start-up period, the permittee shall monitor the flow rate according to Section 4.1, Table I. Flow rate shall be measured at influent pump station. Monitoring under Section 4.1, Table I shall continue until permittee ceases to vault and haul and initiates routine discharge monitoring under Section 4.2, Table IA.

2.5.2 Routine Discharge Monitoring

Upon cessation of the initial start-up period, the permittee shall monitor the effluent on a routine basis according to Section 4.2, Table IA. Representative samples of the effluent shall be collected at sampling point #4, downstream of the UV disinfection system.

2.5.3 Reclaimed Water Monitoring

On a routine basis, the permittee shall monitor the reclaimed water parameters listed under Section 4.2, Table 1B in addition to the routine discharge monitoring parameters listed in Section 4.2, Table 1A. Representative samples of the reclaimed water shall be collected at sampling point #4, downstream of the UV disinfection system.

2.5.4 Facility / Operational Monitoring

Operational monitoring inspections shall be conducted according to Section 4.2, Table III.

1. If any damage of the pollution control structures is identified during inspection, proper repair procedures shall be performed. All repair procedures and materials used shall be documented on the

SMRF submitted quarterly to the ADEQ Water Quality Compliance Section, Data Unit. If none of the conditions occur, the report shall say "no event" for a particular reporting period. If the facility is not in operation, the permittee shall indicate this on the SMRF.

2. The permittee shall submit data required in Section 4.2, Table III regardless of the operating status of the facility unless otherwise approved by the Department or allowed in this permit.

2.5.5 Groundwater Monitoring and Sampling Protocols

The Compliance Schedule of this permit requires a well (POC-4) to be installed upgradient of discharge point DP-6 before the discharge to the wash begins. Ambient groundwater monitoring at the well shall be completed before the discharge to the wash begins. Eight (8) consecutive months of groundwater sampling must be completed to establish existing ambient groundwater quality conditions for use in evaluating short-term or long-term changes in water quality. Each monthly groundwater sample shall be analyzed for the parameters listed in Section 4.2, Table II.

No routine groundwater monitoring is required at the time of permit issuance.

2.5.6 Surface Water Monitoring and Sampling Protocols

Not applicable.

2.5.7 Analytical Methodology

All samples collected for compliance monitoring shall be analyzed using Arizona state-approved methods. If no state-approved method exists, then any appropriate EPA-approved method shall be used. Regardless of the method used, the detection limits must be sufficient to determine compliance with the regulatory limits of the parameters specified in this permit. Analyses shall be performed by a laboratory licensed by the Arizona Department of Health Services, Office of Laboratory Licensure and Certification. For results to be considered valid, all analytical work shall meet quality control standards specified in the approved methods. A list of Arizona state-certified laboratories can be obtained at the address below:

Arizona Department of Health Services
Office of Laboratory Licensure and Certification
250 North 17th Avenue
Phoenix, Arizona 85007
Phone: (602) 364-0720

2.5.8. Installation and Maintenance of Monitoring Equipment

Monitoring equipment required by this permit shall be installed and maintained so that representative samples required by the permit can be collected. If new groundwater wells are determined to be necessary, the construction details shall be submitted to the ADEQ Groundwater Section for approval prior to installation and the permit shall be amended to include any new monitoring points.

2.6 Contingency Plan Requirements
[A.R.S. § 49-243(K)(3), (K)(7) and A.A.C. R18-9-A204 and R18-9-A205]

2.6.1 General Contingency Plan Requirements

At least one copy of this permit and the approved contingency and emergency response plan(s) submitted in the application shall be maintained at the location where day-to-day decisions regarding the operation of the facility are made. The permittee shall be aware of and follow the contingency and emergency plans.

Any AL exceedance, violation of a DL, AQL, or other permit condition shall be reported to ADEQ following the reporting requirements in Section 2.7.3.

Some contingency actions involve verification sampling. Verification sampling shall consist of the first follow-up sample collected from a location that previously indicated a violation or the exceedance of an AL. Collection and analysis of the verification sample shall use the same protocols and test methods to analyze for the pollutant or pollutants that exceeded an AL or violated an AQL. The permittee is subject to enforcement action for the failure to comply with any contingency actions in this permit. Where verification sampling is specified in this permit, it is the option of the permittee to perform such sampling. If verification sampling is not conducted within the timeframe allotted, ADEQ and the permittee shall presume the initial sampling result to be confirmed as if verification sampling has been conducted. The permittee is responsible for compliance with contingency plans relating to the exceedance of an AL or violation of a DL, AQL, or any other permit condition.

2.6.2 Exceeding of Alert Levels/Performance Levels

2.6.2.1 Exceeding of Performance Levels Set for Operational Conditions

1. If an operational performance level (PL) set in Section 4.2, Table III has been exceeded the permittee shall:

    a. Notify the ADEQ Water Quality Compliance Section within five days of becoming aware of the exceedance.

    b. Submit a written report within 30 days after becoming aware of the exceedance. The report shall document all of the following:

        (1) A description of the exceedance and its cause;
        (2) the period of the exceedance, including exact date(s) and time(s), if known, and the anticipated time period during which the exceedance is expected to continue;
        (3) any action taken or planned to mitigate the effects of the exceedance or spill, or to eliminate or prevent recurrence of the exceedance or spill;
        (4) any monitoring activity or other information which indicates that any pollutants would be reasonably expected to cause a violation of an AWQS; and
        (5) any malfunction or failure of pollution control devices or other equipment or process.

2. The facility is no longer on alert status once the operational indicator no longer indicates that a PL is being exceeded. The permittee shall, however, complete all tasks necessary to return the facility to its pre-alert operating condition.

2.6.2.2 Exceeding of Alert Levels (ALs) Set for Discharge Monitoring

1. If an AL set in Section 4.2, Table IA has been exceeded, the permittee shall immediately investigate to determine the cause. The investigation shall include the following:

    a. Inspection, testing, and assessment of the current condition of all treatment or pollutant discharge control systems that may have contributed to the exceedance;
    b. Review of recent process logs, reports, and other operational control information to identify any unusual occurrences; and
    c. If the investigation procedures indicated in (a) and (b) above fail to reveal the cause of the exceedance, the permittee shall sample individual waste streams composing the wastewater for the parameters in question, if necessary to identify the cause of the exceedance.

2. The permittee shall initiate actions identified in the approved contingency plan referenced in Section 5.0 and specific contingency measures identified in Section 2.6 to resolve any problems identified by the investigation which may have led to an AL exceedance. To implement any other corrective action the permittee shall obtain prior approval from ADEQ according to Section 2.6.6.

3. Within 30 days of an AL exceedance, the permittee shall submit the laboratory results to the ADEQ Water Quality Compliance Section, Data Unit, along with a summary of the findings of the investigation, the cause of the exceedance, and actions taken to resolve the problem.

4. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions or other actions.

2.6.2.2.1 Exceeding Permit Flow Limit

1. If the AL for average monthly flow in Section 4.2, Table IA has been exceeded, the permittee shall submit an application for an APP amendment to expand the WRF or submit a report detailing the reasons that expansion is not necessary.
2. Acceptance of the report instead of an application for expansion requires ADEQ approval.

2.6.3 Discharge Limit Violation

1. If a DL set in Section 4.2, Tables IA or IB has been violated, the permittee shall immediately investigate to determine the cause of the violation. The investigation shall include the following:

   a. Inspection, testing, and assessment of the current condition of all treatment or pollutant discharge control systems that may have contributed to the violation;
   b. Review of recent process logs, reports, and other operational control information to identify any unusual occurrences; and
   c. If the investigation procedures indicated in (a) and (b) above fail to reveal the cause of the violation, the permittee shall sample individual waste streams composing the wastewater for the parameters in violation, if necessary to identify the cause of the violation.

   The permittee also shall submit a report according to Section 2.7.3, which includes a summary of the findings of the investigation, the cause of the violation, and actions taken to resolve the problem. The permittee shall consider and ADEQ may require corrective action that may include control of the source of discharge, cleanup of affected soil, surface water or groundwater, and mitigation of the impact of pollutants on existing uses of the aquifer and the installation of additional POC wells (POC-1, POC-2, POC-3, POC-5, and POC-6). Corrective actions shall either be specifically identified in this permit, included in an ADEQ approved contingency plan, or separately approved according to Section 2.6.6.

2. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions, or other actions.

2.6.4 Aquifer Quality Limit Violation

Not applicable – Routine groundwater monitoring is not required under this permit.

Once the permit is amended to increase any flows beyond 250,000 gpd, any AQL exceedances at POC-4 would result a requirement to locate a monitor well at POC-5.

2.6.5 Emergency Response and Contingency Requirements for Unauthorized Discharges pursuant to A.R.S. § 49-201(12) and pursuant to A.R.S. § 49-241

2.6.5.1 Duty to Respond

The permittee shall act immediately to correct any condition resulting from a discharge pursuant to A.R.S. § 49-201(12) if that condition could pose an imminent and substantial endangerment to public health or the environment.

2.6.5.2 Discharge of Hazardous Substances or Toxic Pollutants

In the event of any unauthorized discharge pursuant to A.R.S. § 49-201(12) of suspected hazardous substances (A.R.S. § 49-201(19)) or toxic pollutants (A.R.S. § 49-243(I)) on the facility site, the permittee shall promptly isolate the area and attempt to identify the discharged material. The permittee shall record information, including name, nature of exposure and follow-up medical treatment, if necessary, on persons who may have been exposed during the incident. The permittee shall notify the ADEQ Water Quality Compliance Section within 24 hours of discovering the discharge of hazardous material which (a) has the potential to cause an AWQS or AQL exceedance, or (b) could pose an endangerment to public health or the environment.

2.6.5.3 Discharge of Non-hazardous Materials

In the event of any unauthorized discharge pursuant to A.R.S. § 49-201(12) of non-hazardous materials from the facility, the permittee shall promptly attempt to cease the discharge and isolate the discharged material. Discharged material shall be removed and the site cleaned up as soon as possible. The permittee shall notify the ADEQ Water Quality Compliance Section within 24 hours of discovering the discharge of non-hazardous material which (a) has the potential to cause an AQL exceedance, or (b) could pose an endangerment to public health or the environment.

2.6.5.4 Reporting Requirements

The permittee shall submit a written report for any unauthorized discharges reported under Sections 2.6.5.2 and 2.6.5.3 to the ADEQ Water Quality Compliance Section within 30 days of the discharge or as required by subsequent ADEQ action. The report shall summarize the event, including any human exposure, and facility response activities and include all information specified in Section 2.7.3. If a notice is issued by ADEQ subsequent to the discharge notification, any additional information requested in the notice shall also be submitted within the time frame specified in the notice. Upon review of the submitted report, ADEQ may require additional monitoring or corrective actions.

2.6.6 Corrective Actions

Specific contingency measures identified in Section 2.6 have already been approved by ADEQ and do not require written approval to implement.

With the exception of emergency response actions taken under Section 2.6.5, the permittee shall obtain written approval from the Groundwater Section prior to implementing a corrective action to accomplish any of the following goals in response to exceedance of an AL or violation of an AQL, DL, or other permit condition:

1. Control of the source of an unauthorized discharge;
2. Soil cleanup;
3. Cleanup of affected surface waters;
4. Cleanup of affected parts of the aquifer;
5. Mitigation to limit the impact of pollutants on existing uses of the aquifer.

Within 30 days of completion of any corrective action, the operator shall submit to the ADEQ Water Quality Compliance Section, a written report describing the causes, impacts, and actions taken to resolve the problem.

2.7 Reporting and Recordkeeping Requirements [A.R.S. § 49-243(K)(2) and A.A.C. R18-9-A206(B) and R18-9-A207]

2.7.1 Self-monitoring Report Form

1. The permittee shall complete the SMRFs provided by ADEQ, and submit them to the Water Quality Compliance Section, Data Unit.
2. The permittee shall complete the SMRF to the extent that the information reported may be entered on the form. If no information is required during a reporting period, the permittee shall enter "not required" on the SMRF and submit the report to ADEQ. The permittee shall use the format devised by ADEQ.
3. The tables contained in Section 4.0 list the parameters to be monitored and the frequency for reporting results for compliance monitoring. Analytical methods shall be recorded on the SMRFs.
4. In addition to the SMRF, the information contained in A.A.C. R18-9-A206(B)(1) shall be included for exceeding an AL or violation of an AQL, DL, or any other permit condition being reported in the current reporting period.

2.7.2 Operation Inspection / Log Book Recordkeeping

A signed copy of this permit shall be maintained at all times at the location where day-to-day decisions regarding the operation of the facility are made. A log book (paper copies, forms, or electronic data) of the inspections and measurements required by this permit shall be maintained at the location where day-to-day decisions are made regarding the operation of the facility. The log book shall be retained for ten years from the date of each inspection, and upon request, the permit and the log book shall be made immediately available for review by ADEQ personnel. The information in the log book shall include, but not be limited to, the following information as applicable:

1. Name of inspector;
2. Date and shift inspection was conducted;
3. Condition of applicable facility components;
4. Any damage or malfunction, and the date and time any repairs were performed;
5. Documentation of sampling date and time; and
6. Any other information required by this permit to be entered in the log book.

Monitoring records for each measurement shall comply with A.A.C. R18-9-A206(B)(2).

2.7.3 Permit Violation and Alert Level Status Reporting

1. The permittee shall notify the Water Quality Compliance Section in writing (by mail or by fax - see Section 2.7.5) within five days (except as provided in Section 2.6.5) of becoming aware of a violation of any permit condition, discharge limitation, or of an AL exceedance.

2. The permittee shall submit a written report to the Water Quality Compliance Section within 30 days of becoming aware of the violation of any permit condition or discharge limitation. The report shall document all of the following:

    a. Identification and description of the permit condition for which there has been a violation and a description of the cause;
    b. The period of violation including exact date(s) and time(s), if known, and the anticipated time period during which the violation is expected to continue;
    c. Any corrective action taken or planned to mitigate the effects of the violation, or to eliminate or prevent a recurrence of the violation;

d. Any monitoring activity or other information which indicates that any pollutants would be reasonably expected to cause a violation of an AWQS;
e. Proposed changes to the monitoring which include changes in constituents or increased frequency of monitoring; and
f. Description of any malfunction or failure of pollution control devices or other equipment or processes.

2.7.4 Operational, Other or Miscellaneous Reporting

The permittee shall complete the SMRF provided by the Department to reflect facility inspection requirements designated in Section 4.2, Table III and submit to the ADEQ Water Quality Compliance Section, Data Unit quarterly along with other reports required by this permit. Facility inspection reports shall be submitted no less frequently than quarterly, regardless of operational status.

If the treatment facility is classified for reclaimed water under this permit, the permittee shall submit the reclaimed water monitoring results as required in Section 4.2, Table IB and flow volumes to any of the following in accordance with A.A.C. R18-9-703(C)(2)(c):

1. Any reclaimed water agent who has contracted for delivery of reclaimed water from the permittee; and
2. Any end user who has not waived interest in receiving this information.

2.7.5 Reporting Location

All SMRFs shall be submitted to:

Arizona Department of Environmental Quality
Water Quality Compliance Section, Data Unit
Mail Code 5415B-1
1110 West Washington Street
Phoenix, Arizona 85007
Phone (602) 771-4681

All documents required by this permit to be submitted to the Water Quality Compliance Section shall be directed to the following address:

Arizona Department of Environmental Quality
Water Quality Compliance Section
Mail Code 5415B-1
1110 West Washington Street
Phoenix, Arizona 85007
Phone (602) 771-4497
Fax (602) 771-4505

All documents required by this permit to be submitted to the Groundwater Section shall be directed to:

Arizona Department of Environmental Quality
Groundwater Section
Mail Code 5415B-3
1110 West Washington Street
Phoenix, Arizona 85007
Phone (602) 771-4428

2.7.6 Reporting Deadline

The following table lists the quarterly report due dates[1]:

Monitoring conducted during quarter:	Quarterly Report due by:
January-March	April 30
April-June	July 30
July-September	October 30
October-December	January 30

The following table lists the semi-annual and annual report due dates:

Monitoring conducted:	Report due by:
Semi-annual: January-June	July 30
Semi-annual: July-December	January 30
Annual: January-December	January 30

2.7.7 Changes to Facility Information in Section 1.0

The Groundwater Section, and the Water Quality Compliance Section, shall be notified within ten days of any change of facility information including Facility Name, Permittee Name, Mailing or Street Address, Facility Contact Person, or Emergency Telephone Number.

2.8 Temporary Cessation [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A209(A)]

The permittee shall give written notice to the Water Quality Compliance Section before ceasing operation of the facility for a period of 60 days or greater. The permittee shall take the following measures upon temporary cessation:

1. If applicable, direct the wastewater flows from the facility to another state-approved wastewater treatment facility;
2. Correct the problem that caused the temporary cessation of the facility; and
3. Notify the ADEQ Water Quality Compliance Section and the with a monthly facility status report describing the activities conducted on the treatment facility to correct the problem.

At the time of notification the permittee shall submit for ADEQ approval a plan for maintenance of discharge control systems and for monitoring during the period of temporary cessation. Immediately following ADEQ approval, the permittee shall implement the approved plan. If necessary, ADEQ shall amend permit conditions to incorporate conditions to address temporary cessation. During the period of temporary cessation, the permittee shall provide written notice to the Water Quality Compliance Section of the operational status of the facility every three years. If the permittee intends to permanently cease operation of any facility, the permittee shall submit closure notification, as set forth in Section 2.9 below.

2.9 Closure [A.R.S. §§ 49-243(K)(6), 49-252 and A.A.C. R18-9-A209(B)]

For a facility addressed under this permit, the permittee shall give written notice of closure to the Water Quality Compliance Section of the intent to cease operation without resuming activity for which the facility was designed or operated.

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[1]A post-mark date no later than the due date is considered meeting the due date requirements under this Section.

2.9.1 Closure Plan

Within 90 days following notification of closure, the permittee shall submit for approval to the Groundwater Section, a closure plan which meets the requirements of A.R.S. § 49-252 and A.A.C. R18-9-A209(B)(3).

If the closure plan achieves clean-closure immediately, ADEQ shall issue a letter of approval to the permittee. If the closure plan contains a schedule for bringing the facility to a clean-closure configuration at a future date, ADEQ may incorporate any part of the schedule as an amendment to this permit.

2.9.2 Closure Completion

Upon completion of closure activities, the permittee shall give written notice to the Groundwater Section indicating that the approved closure plan has been implemented fully and providing supporting documentation to demonstrate that clean-closure has been achieved (soil sample results, verification sampling results, groundwater data, as applicable). If clean-closure has been achieved, ADEQ shall issue a letter of approval to the permittee at that time. If any of the following conditions apply, the permittee shall follow the terms of post-closure stated in this permit:

1. Clean-closure cannot be achieved at the time of closure notification or within one year thereafter under a diligent schedule of closure actions;
2. Further action is necessary to keep the facility in compliance with AWQS at the applicable POC;
3. Continued action is required to verify that the closure design has eliminated discharge to the extent intended;
4. Remediation or mitigation measures are necessary to achieve compliance with Title 49, Ch. 2; and
5. Further action is necessary to meet property use restrictions.

2.10 Post-closure [A.R.S. §§ 49-243(K)(6), 49-252 and A.A.C. R18-9 A209(C)]

Post-closure requirements shall be established based on a review of facility closure actions and will be subject to review and approval by the Groundwater Section.

In the event clean-closure cannot be achieved pursuant to A.R.S. § 49-252, the permittee shall submit for approval to the Groundwater Section a post-closure plan that addresses post-closure maintenance and monitoring actions at the facility. The post-closure plan shall meet all requirements of A.R.S. §§ 49-201(30) and 49-252 and A.A.C. R18-9-A209(C). Upon approval of the post-closure plan, this permit shall be amended or a new permit shall be issued to incorporate all post-closure controls and monitoring activities of the post-closure plan.

2.10.1 Post-closure Plan

A specific post-closure plan may be required upon the review of the closure plan.

2.10.2 Post-closure Completion

Not required at the time of permit issuance.

3.0 COMPLIANCE SCHEDULE [A.R.S. § 49-243(K)(5) and A.A.C. R18-9-A208]

For each compliance schedule item listed below, the permittee shall submit the required information, including a cover letter that lists the compliance schedule items, to the Groundwater Section. A copy of the cover letter must also be submitted to the ADEQ Water Quality Compliance Section.

Description	Due by:
The permittee shall submit a signed, dated, and sealed Engineer's Certificate of Completion in a format approved by the Department that confirms that the facility is constructed according to the Department-approved design report or plans and specifications, as applicable.	Prior to discharging under this permit and within 90 days after completion of construction.
Notification of cessation of vault and haul.	Within 15 days after the date of the cessation of the vault and haul activity or within 15 days after the first day when flow exceeds 7,500 gpd, whichever comes first.
Installation of POC 4: The permittee shall install a groundwater monitoring well at POC-4. The geologic and well construction logs must be submitted. The log must include the ADWR registration number, the "as built" plan, and cadastral and latitude and longitude coordinates for the well.	Require the installation of POC-4 before the discharge to the wash begins.
Begin ambient groundwater monitoring and conduct at least eight rounds of sampling for all parameters listed in Table II.	Within 30 days of installation of POC #4.
Ambient Groundwater Monitoring Report for POC-4: The permittee shall submit an Ambient Groundwater Monitoring Report to the Groundwater Section along with a request for an Other Amendment to the permit. The permittee shall propose ALs and AQLs based on statistical evaluation of eight monthly rounds of groundwater monitoring to set the AQLs and ALs listed as in Table II.	Submit the ambient groundwater report at the same time when an amendment is submitted to increase flows beyond 0.1 mgd.
Flow increase to 1.0 mgd is permitted upon approval of an other amendment.	Submit an other amendment application prior to any flow increase beyond 0.1 mgd. Discuss closure of treatment units in the Phase I
Flow increase to 1.5 mgd is permitted upon approval of an other amendment.	Submit an other amendment application prior to any flow increase beyond 1.0 mgd.

4.0 TABLES OF MONITORING REQUIREMENTS

4.1 PRE-OPERATIONAL MONITORING (OR CONSTRUCTION REQUIREMENTS)

TABLE I
INITIAL START-UP PLAN[2]

Sampling Point Number	Sampling Point Identification		Latitude		Longitude
1	Flow meter located at influent pump station		32° 42' 47.27" N		110° 59' 51.22" W
Parameter	**AL[3]**	**DL[4]**	**Units**	**Sampling Frequency**	**Reporting Frequency**
Total Flow: Daily[5]	Not Established[6]	0.0075	mgd[7]	Everyday	Quarterly

[2] Monitoring under this table shall continue until permittee ceases to vault and haul and initiates routine monitoring under Section 4.2, Table IA.
[3] AL = Alert Level
[4] DL = Discharge Limit
[5] Flow shall be measured using a continuous recording flow meter that totals the flows daily.
[6] Not Established means monitoring is required but no limits are specified.
[7] mgd = million gallons per day

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE IA
ROUTINE DISCHARGE MONITORING[8]

Sampling Point Number	Sampling Point Identification			Latitude	Longitude
2	Flow meter located at the effluent pump station for reuse flow			32° 42' 48.17" N	110° 59' 53.51" W
3	Flow meter located at the effluent pump station for AZPDES discharge			32° 42' 48.11" N	110° 59' 53.54" W
4	Downstream of the UV disinfection system[9]			32° 42' 48.89" N	110° 59' 52.26" W
Parameter	**AL[10]**	**DL[11]**	**Units**	**Sampling Frequency**	**Reporting Frequency**
Total Flow[12]: Daily[13]	Not Established[14]	Not Established	mgd[15]	Everyday	Quarterly
Total Flow: Monthly Average[16]	0.095	0.1	mgd	Monthly Calculation	Quarterly
Total Flow[17] - Reuse Daily	Not Established	Not Established	mgd	Everyday	Quarterly
Total Flow - Reuse Monthly Average	Not established	0.1	mgd	Monthly Calculation	Quarterly
AZPDES Flow[18]: Daily	Not Established	Not Established	mgd	Everyday	Quarterly
AZPDES Flow: Average Monthly	Not established	0.1	mgd	Monthly	Quarterly
Fecal Coliform: Single sample maximum	Not established	800	CFU or MPN[19]	Daily	Quarterly
Fecal Coliform: four (4) of seven (7) samples in a week[20]	Not established	200	CFU or MPN	Daily	Quarterly
Total Nitrogen[21]: Five-sample rolling geometric mean	8.0	10.0	mg/l[22]	Monthly[23]	Quarterly

[8] The permittee shall initiate monitoring under this table (Section 4.2, Table IA) upon ceasing vault and haul during the initial start-up period. (see Section 4.1, Table I)
[9] Sampling point for pathogens, total nitrogen, metals, VOCs and SVOCs, and indicator parameters.
[10] AL = Alert Level
[11] DL = Discharge Limit
[12] Total flow for all methods of disposal (Reuse and AZPDES)
[13] Flow shall be measured using a continuous recording flow meter which totals the flow daily.
[14] Not Established means monitoring is required but no limits are specified.
[15] mgd = million gallons per day
[16] Monthly average of daily flow values.
[17] Reuse flows are measured at sampling Point #2
[18] AZPDES flows are measured at sampling point #3
[19] CFU = Colony Forming Units / 100 ml sample. MPN = Most Probable Number / 100 ml sample. For CFU, a value of <1.0 shall be considered to be non-detect. For MPN, a value of <2.2 shall be considered to be non-detect.
[20] **Week** means a seven-day period starting on Sunday and ending on the following Saturday.
[21] Total Nitrogen = Nitrate as N + Nitrite as N + Total Kjeldahl Nitrogen
[22] mg/l = milligrams per liter
[23] A five-month geometric mean of the results of the five (5) most recent samples

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE IA
ROUTINE DISCHARGE MONITORING (continued)

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Metals (total):					
Antimony	0.0048	0.006	mg/l	Quarterly	Quarterly
Arsenic	0.04	0.05	mg/l	Quarterly	Quarterly
Barium	1.60	2.00	mg/l	Quarterly	Quarterly
Beryllium	0.0032	0.004	mg/l	Quarterly	Quarterly
Cadmium	0.004	0.005	mg/l	Quarterly	Quarterly
Chromium	0.08	0.1	mg/l	Quarterly	Quarterly
Cyanide (as free cyanide)	0.16	0.2	mg/l	Quarterly	Quarterly
Fluoride	3.2	4.0	mg/l	Quarterly	Quarterly
Lead	0.04	0.05	mg/l	Quarterly	Quarterly
Mercury	0.0016	0.002	mg/l	Quarterly	Quarterly
Nickel	0.08	0.1	mg/l	Quarterly	Quarterly
Selenium	0.04	0.05	mg/l	Quarterly	Quarterly
Thallium	0.0016	0.002	mg/l	Quarterly	Quarterly

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE IA
ROUTINE DISCHARGE MONITORING (continued)

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Volatile and Semi-Volatile Organic Compounds (VOCs and SVOCs):					
Benzene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Carbon tetrachloride	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
o-Dichlorobenzene	0.48	0.6	mg/l	Semi-Annually	Semi-Annually
para-Dichlorobenzene	0.06	0.075	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,1-Dichloroethylene	0.0056	0.007	mg/l	Semi-Annually	Semi-Annually
cis-1,2-Dichloroethylene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
trans-1,2-Dichloroethylene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Dichloromethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloropropane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Ethylbenzene	0.56	0.7	mg/l	Semi-Annually	Semi-Annually
Hexachlorobenzene	0.0008	0.001	mg/l	Semi-Annually	Semi-Annually
Hexachlorocyclopentadiene	0.04	0.05	mg/l	Semi-Annually	Semi-Annually
Monochlorobenzene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Styrene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Tetrachloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Toluene	0.8	1.0	mg/l	Semi-Annually	Semi-Annually
Trihalomethanes (total) [24]	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
1,1,1-Trichloroethane	0.16	0.2	mg/l	Semi-Annually	Semi-Annually
1,2,4 - Trichlorobenzene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
1,1,2 - Trichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Trichloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Vinyl Chloride	0.0016	0.002	mg/l	Semi-Annually	Semi-Annually
Xylenes (Total)	8.0	10.0	mg/l	Semi-Annually	Semi-Annually

[24]Total Trihalomethanes are comprised of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE IA
ROUTINE DISCHARGE MONITORING (continued)

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Indicator Parameters / Major Cations and Anions:					
pH (field)	Monitor[25]	Monitor	S.U.	Quarterly	Quarterly
Iron	Monitor	Monitor	mg/l	Quarterly	Quarterly
Manganese	Monitor	Monitor	mg/l	Quarterly	Quarterly
Total Organic Carbon	Monitor	Monitor	mg/l	Quarterly	Quarterly
Total Dissolved Solids	Monitor	Monitor	mg/l	Quarterly	Quarterly
Sodium	Monitor	Monitor	mg/l	Quarterly	Quarterly
Potassium	Monitor	Monitor	mg/l	Quarterly	Quarterly
Calcium	Monitor	Monitor	mg/l	Quarterly	Quarterly
Magnesium	Monitor	Monitor	mg/l	Quarterly	Quarterly
Chloride	Monitor	Monitor	mg/l	Quarterly	Quarterly
Sulfate	Monitor	Monitor	mg/l	Quarterly	Quarterly
Alkalinity	Monitor	Monitor	mg/l	Quarterly	Quarterly
Specific Conductivity (field)	Monitor	Monitor	µmhos/cm	Quarterly	Quarterly

[25] Monitoring required, but no limits established.

4.2 *COMPLIANCE (or OPERATIONAL) MONITORING*

TABLE IB
RECLAIMED WATER MONITORING - CLASS A+[26]

Sampling Point Number	**Sampling Point Identification**		**Latitude**	**Longitude**
4	Down stream of the UV disinfection unit		32° 42' 48.89" N	110° 59' 52.26" W
Parameter	**DL[27]**	**Units**	**Sampling Frequency**	**Reporting Frequency**
Total Nitrogen[28]: Five-sample rolling geometric mean	10.0	mg/l	Monthly	Quarterly
Fecal Coliform: Single-sample maximum	23.0	CFU or MPN[29]	Daily[30]	Quarterly
Fecal Coliform: Four (4) of last seven (7) samples	Non-detect[31]	CFU or MPN	Daily	Quarterly
Turbidity[32]: Single reading	5.0	NTU[33]	Everyday[34]	Quarterly
Turbidity: 24-hour average	2.0	NTU	Everyday	Quarterly
Enteric Virus[35]: Four (4) of last seven (7) samples	Non-detect	PFU[36]	Monthly / Suspended[37]	Quarterly

[26]Reclaimed water monitoring under Table 1B shall be performed in addition to routine discharge monitoring required under Section 4.2, Table 1A.

[27]DL = discharge limit

[28]Nitrate N, plus Nitrite N, plus Total Kjeldahl Nitrogen (TKN)

[29]CFU = Colony Forming Units per 100 ml: MPN = Most Probable Number per 100 ml. For CFU, a value of <1.0 shall be considered to be non-detect. For MPN, a value of <2.2 shall be considered to be non-detect.

[30]For fecal coliform, "daily" sampling means every day in which a sample can practicably be obtained and delivered in sufficient time for proper analysis, provided that no less than four (4) samples in each seven-day period are obtained and analyzed.

[31]If at least four (4) of the last seven (7) samples are non-detect, report "yes" in the appropriate space on the SMRF (indicating that the standard has been met). If at least four (4) of the last seven (7) samples have detections of fecal coliform, report "no" in the appropriate space on the SMRF (indicating that the standard has **not** been met).

[32]Turbidimeter shall have a signal averaging time not exceeding 120 seconds. All exceedances must be explained and submitted to the Department with the corresponding quarterly SMRF. Occasional spikes due to back-flushing or instrument malfunction shall not be considered an exceedance.

[33]NTU = Nephelometric Turbidity Units

[34]For the single turbidity reading, "everyday" means the maximum reading during the 24-hour period.

[35]Initial monthly enteric virus sampling shall be performed to indicate four (4) out of seven (7) sample results of non-detect.

[36]Plaque Forming Units per 40 Liters. A value of <1.1 PFU/40 L shall be considered to be non-detect.

[37]Enteric virus sampling shall resume only when the discharge limit for the 24-hour average for turbidity is exceeded for two (2) consecutive 24-hour monitoring periods. Monthly enteric virus monitoring shall continue until four (4) out of seven (7) consecutive sample results show no detection. During times when enteric virus sampling is suspended, enter "suspended" in the appropriate space on the SMRF.

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE II
AMBIENT GROUNDWATER MONITORING[38]

Sampling Point Number	**Sampling Point Identification**			**Latitude**	**Longitude**
5	POC #4 - South DP-004 and DP-005 at Suffering Wash			32° 42' 37" N	110° 59' 22" W
Parameter	**AL[39]**	**AQL[40]**	**Units**	**Sampling Frequency**	**Reporting Frequency**
Depth to water	N.E.[41]	NE	Feet below surface	Quarterly	Quarterly
Total Nitrogen[42]:	N.E.	N.E.	mg/l	Monthly	See footnote[43]
Nitrate-Nitrite as N	N.E.	N.E	mg/l	Monthly	See footnote
Total Kjeldahl Nitrogen (TKN)	N.E.	N.E.	mg/l	Monthly	See footnote
Total Coliform	N.E.	N.E.	CFU or MPN[44]	Monthly	See footnote
Metals (total):					
Antimony	N.E.	N.E.	mg/l	Monthly	See footnote
Arsenic	N.E.	N.E.	mg/l	Monthly	See footnote
Barium	N.E.	N.E.	mg/l	Monthly	See footnote
Beryllium	N.E.	N.E.	mg/l	Monthly	See footnote
Cadmium	N.E.	N.E.	mg/l	Monthly	See footnote
Chromium	N.E.	N.E.	mg/l	Monthly	See footnote
Cyanide (as free cyanide)	N.E.	N.E.	mg/l	Monthly	See footnote
Fluoride	N.E.	N.E.	mg/l	Monthly	See footnote
Lead	N.E.	N.E.	mg/l	Monthly	See footnote
Mercury	N.E.	N.E.	mg/l	Monthly	See footnote
Nickel	N.E.	N.E.	mg/l	Monthly	See footnote
Selenium	N.E.	N.E.	mg/l	Monthly	See footnote
Thallium	N.E.	N.E.	mg/l	Monthly	See footnote

[38] Once ambient groundwater monitoring is completed as section 3.0, groundwater monitoring under this permit may be discontinued.
[39] AL = Alert Level
[40] AQL= Aquifer Quality Limit.
[41] N.E. = Not Established = Monitoring required, but no limits are specified.
[42] Total Nitrogen is equal to nitrate as N plus nitrite as N plus TKN.
[43] Submit ambient groundwater monitoring report when the facility increases flow beyond 0.1 mgd.
[44] CFU = Colony Forming Units per 100 ml, MPN = Most Probable Number per 100 ml.

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE II
AMBIENT GROUNDWATER MONITORING (continued)

Parameter	AL	AQL	Units	Sampling Frequency	Reporting Frequency
Volatile Organic Compounds (VOCs):					
Benzene	N.E	N.E	mg/l	Monthly	See footnote[45]
Carbon tetrachloride	N.E	N.E	mg/l	Monthly	See footnote
o-Dichlorobenzene	N.E	N.E	mg/l	Monthly	See footnote
para-Dichlorobenzene	N.E	N.E	mg/l	Monthly	See footnote
1,2-Dichloroethane	N.E	N.E	mg/l	Monthly	See footnote
1,1-Dichloroethylene	N.E	N.E	mg/l	Monthly	See footnote
cis-1,2-Dichloroethylene	N.E	N.E	mg/l	Monthly	See footnote
trans-1,2-Dichloroethylene	N.E	N.E	mg/l	Monthly	See footnote
Dichloromethane	N.E	N.E	mg/l	Monthly	See footnote
1,2-Dichloropropane	N.E	N.E	mg/l	Monthly	See footnote
Ethylbenzene	N.E	N.E	mg/l	Monthly	See footnote
Hexachlorobenzene	N.E	N.E	mg/l	Monthly	See footnote
Hexachlorocyclopentadiene	N.E	N.E	mg/l	Monthly	See footnote
Monochlorobenzene	N.E	N.E	mg/l	Monthly	See footnote
Styrene	N.E	N.E	mg/l	Monthly	See footnote
Tetrachloroethylene	N.E	N.E	mg/l	Monthly	See footnote
Toluene	N.E	N.E	mg/l	Monthly	See footnote
Trihalomethanes (total)[46]	N.E	N.E	mg/l	Monthly	See footnote
1,1,1-Trichloroethane	N.E	N.E	mg/l	Monthly	See footnote
1,2,4 - Trichlorobenzene	N.E	N.E	mg/l	Monthly	See footnote
1,1,2 - Trichloroethane	N.E	N.E	mg/l	Monthly	See footnote
Trichloroethylene	N.E	N.E	mg/l	Monthly	See footnote
Vinyl Chloride	N.E	N.E	mg/l	Monthly	See footnote
Xylenes (Total)	N.E	N.E	mg/l	Monthly	See footnote

[45] Submit ambient groundwater monitoring report when the facility increases flow beyond 0.1 mgd.
[46] Total Trihalomethanes are comprised of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE II
AMBIENT GROUNDWATER MONITORING (continued)

Parameter	AL	AQL	Units	Sampling Frequency	Reporting Frequency
Indicator Parameters / Major Cations and Anions:					
pH (field)	Monitor[47]	Monitor	S.U.	Monthly	See footnote
Iron	Monitor	Monitor	mg/l	Monthly	See footnote
Manganese	Monitor	Monitor	mg/l	Monthly	See footnote
Total Organic Carbon	Monitor	Monitor	mg/l	Monthly	See footnote
Total Dissolved Solids	Monitor	Monitor	mg/l	Monthly	See footnote
Sodium	Monitor	Monitor	mg/l	Monthly	See footnote
Potassium	Monitor	Monitor	mg/l	Monthly	See footnote
Calcium	Monitor	Monitor	mg/l	Monthly	See footnote
Magnesium	Monitor	Monitor	mg/l	Monthly	See footnote
Chloride	Monitor	Monitor	mg/l	Monthly	See footnote
Sulfate	Monitor	Monitor	mg/l	Monthly	See footnote
Alkalinity	Monitor	Monitor	mg/l	Monthly	See footnote
Specific Conductivity (field)	Monitor	Monitor	µmhos/cm	Monthly	See footnote

[47] Monitoring required, but no limits established.

4.2 COMPLIANCE (or OPERATIONAL) MONITORING

TABLE III
FACILITY INSPECTION (Operational Monitoring)

Pollution Control Structures/Parameter	Performance Levels	Inspection Frequency	Reporting Frequency
Pump Integrity	Good working condition	Weekly	Quarterly
Treatment Plant Components	Good working condition	Weekly	Quarterly

5.0 REFERENCES AND PERTINENT INFORMATION

The terms and conditions set forth in this permit have been developed based upon the information contained in the following, which are on file with the Department:

1.	APP Application, dated:	January 26, 2007 (Individual APP)
2.	Contingency Plan, dated:	January 26, 2007
3.	Final Hydrologist Report, dated:	September 30, 2009
4.	Final Engineering Report, dated:	October 06, 2009
5.	Public Notice, dated:	October 14, 2010 (Individual APP)
6.	Public Hearing, dated:	Not applicable.
7.	Responsiveness Summary, dated:	November 17, 2010 (Individual APP)

6.0 NOTIFICATION PROVISIONS

6.1 Annual Registration Fees

The permittee is notified of the obligation to pay an Annual Registration Fee to ADEQ. The Annual Registration Fee is based upon the amount of daily influent or discharge of pollutants in gpd as established by A.R.S. § 49-242(D).

6.2 Duty to Comply [A.R.S. §§ 49-221 through 263]

The permittee is notified of the obligation to comply with all conditions of this permit and all applicable provisions of Title 49, Chapter 2, Articles 1, 2 and 3 of the Arizona Revised Statutes, Title 18, Chapter 9, Articles 1 through 4, and Title 18, Chapter 11, Article 4 of the Arizona Administrative Code. Any permit non-compliance constitutes a violation and is grounds for an enforcement action pursuant to Title 49, Chapter 2, Article 4 or permit amendment, suspension, or revocation.

6.3 Duty to Provide Information [A.R.S. §§ 49-243(K)(2) and 49-243(K)(8)]

The permittee shall furnish to the Director, or an authorized representative, within a time specified, any information which the Director may request to determine whether cause exists for amending or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

6.4 Compliance with Aquifer Water Quality Standards [A.R.S. §§ 49-243(B)(2) and 49-243(B)(3)]

The permittee shall not cause or contribute to a violation of an AWQS at the applicable POC for the facility. Where, at the time of issuance of the permit, an aquifer already exceeds an AWQS for a pollutant, the permittee shall not discharge that pollutant so as to further degrade, at the applicable point of compliance for the facility, the water quality of any aquifer for that pollutant.

6.5 Technical and Financial Capability [A.R.S. §§ 49-243(K)(8) and 49-243(N) and A.A.C. R18-9-A202(B) and R18-9-A203(E) and (F)]

The permittee shall have and maintain the technical and financial capability necessary to fully carry out the terms and conditions of this permit. Any bond, insurance policy, trust fund, or other financial assurance mechanism provided as a demonstration of financial capability in the permit application, pursuant to A.A.C. R18-9-A203(D), shall be in effect prior to any discharge authorized by this permit and shall remain in effect for the duration of the permit.

6.6 Reporting of Bankruptcy or Environmental Enforcement [A.A.C. R18-9-A207(C)]

The permittee shall notify the Director within five days after the occurrence of any one of the following:

1. the filing of bankruptcy by the permittee; or
2. the entry of any order or judgment not issued by the Director against the permittee for the enforcement of any environmental protection statute or rule.

6.7 Monitoring and Records [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A206]

The permittee shall conduct any monitoring activity necessary to assure compliance with this permit, with the applicable water quality standards established pursuant to A.R.S. §§ 49-221 and 49-223 and §§ 49-241 through 49-252.

6.8 Inspection and Entry [A.R.S. §§ 41-1009, 49-203(B), and 49-243(K)(8)]

In accordance with A.R.S. §§ 41-1009 and 49-203(B), the permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to enter and inspect the facility as reasonably necessary to ensure compliance with Title 49, Chapter 2, Article 3 of the Arizona Revised Statutes, and Title 18, Chapter 9, Articles 1 through 4 of the Arizona Administrative Code and the terms and conditions of this permit.

6.9 Duty to Modify [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A211]

The permittee shall apply for and receive a written amendment before deviating from any of the designs or operational practices authorized by this permit.

6.10 Permit Action: Amendment, Transfer, Suspension, and Revocation [A.R.S. §§ 49-201, 49-241 through 251, A.A.C. R18-9-A211, R18-9-A212 and R18-9-A213]

This permit may be amended, transferred, suspended, or revoked for cause, under the rules of the Department. The permittee shall notify the Groundwater Section in writing within 15 days after any change in the owner or operator of the facility. The notification shall state the permit number, the name of the facility, the date of property transfer, and the name, address, and phone number where the new owner or operator can be reached. The operator shall advise the new owner or operators of the terms of this permit and the need for permit transfer in accordance with the rules.

7.0 ADDITIONAL PERMIT CONDITIONS

7.1 Other Information [A.R.S. § 49-243(K)(8)]

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, the permittee shall promptly submit the correct facts or information.

7.2 Severability [A.R.S. §§ 49-201, 49-241 through 251, A.A.C. R18-9-A211, R18-9-A212 and R18-9-A213]

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby. The filing of a request by the permittee for a permit action does not stay or suspend the effectiveness of any existing permit condition.

7.3 Permit Transfer

This permit may not be transferred to any other person except after notice to and approval of the transfer by the Department. No transfer shall be approved until the applicant complies with all transfer requirements as specified in A.A.C. R18-9-A212(B) and (C).

Fact Sheet

Aquifer Protection Permit #P-105855
Place ID 126506, LTF 43128
Willow Springs Water Reclamation Facility
(WRF)

The Arizona Department of Environmental Quality (ADEQ) proposes to issue an Aquifer Protection Permit for the subject facility that covers the life of the facility, including operational, closure, and post-closure periods unless suspended or revoked pursuant to A.A.C. R18-9-A213. This document gives pertinent information concerning the issuance of the permit. The requirements contained in this permit will allow the permittee to comply with the two key requirements of the Aquifer Protection Program: 1) meet Aquifer Water Quality Standards at the Point of Compliance (POC); and 2) demonstrate Best Available Demonstrated Control Technology (BADCT). The purpose of BADCT is to employ engineering controls, processes, operating methods or other alternatives, including site-specific characteristics (i.e., local subsurface geology) to reduce discharge of pollutants to the greatest degree achievable before they reach the aquifer, or to keep pollutants from reaching the aquifer.

I. FACILITY INFORMATION

Name and Location

Name of Permittee:	Willow Springs Utilities, LLC
Mailing Address:	3275 West Ina Road, Suite #275 Tucson, AZ 85741
Facility Name and Location:	Willow Springs Water Reclamation Facility (WRF) Located approximately ten miles north-northwest of Oracle Junction (Pinal County)

Regulatory Status

This is a new facility. At the time of permit issuance, there are no active Notices of Violation (NOVs). The application for this current individual Aquifer Protection Permit is received by ADEQ on January 26, 2007.

Facility Description

The Willow Springs Water Reclamation Facility (WRF) will have the capacity to collect and treat a maximum average monthly flow of 0.1 million gallons per day (mgd) at the end of Phase I construction. At full build-out (after Phases I, II, and III), the facility will consist of three (3) identical treatment trains with a capacity of 0.5 mgd each, for a final design capacity of 1.5 mgd. The current permit is for Phase I only. Phases II and III will be covered under a permit amendment.

Willow Springs Utilities, LLC, is authorized to operate a 0.1 million gallons per day (mgd) WRF. The treatment process consists of a Membrane Bioreactor (MBR) package plant with an influent pump station, screening, and a basin with aerobic and anoxic zones, a membrane basin for micro filtration, and ultra-violet (UV) disinfection. Effluent is stored in an effluent storage tank in order

to regulate the flow to the various disposal options. The influent and effluent pump station in Phase I will also be used for Phases II and III plant with additional pump grades. The storage tank will also be used in the Phases II and III expansion. The Phase I plant will cease operation once the Phase II plant is operational. Closure of the Phase I components will be incorporated in the amendment to operate the Phase II plant.

The WRF is classified as producing Class A+ reclaimed water pursuant to A.A.C. R18-11-303. The permittee may transport reclaimed water for beneficial use under a valid reclaimed water permit, or discharge effluent to Suffering Wash at discharge point six (DP-6) in quantities which exceed the reuse demand under a valid AZPDES permit. The sludge will be directly sent to a landfill.

ADEQ has reviewed and approved the treatment and disposal capacity for Phase II (1.0 mgd) and Phase III (1.5 mgd). Therefore, additional flows up to 1.5 mgd may be added under an other amendment, as long as additional phases are constructed per the currently approved design plans submitted with this APP application, and there is no change to the method of disposal.

Increase of flow to 1.0 mgd

The permittee may increase flow to 1.0 mgd by submitting an application for an "other" amendment consisting of revised figures for financial capability and a demonstration of financial assurance based on the revised figures.

The 1.0 mgd plant will have two identical 0.5 mgd treatment trains. Each treatment train will consist of a fine screen, a bioreactor tank with pre-anoxic, anoxic and aeration zones, and membrane basin with for micro filtration. The effluent will be disinfected through an ultraviolet (UV) system. The effluent will be discharged to an effluent storage tank and then to an effluent pump station for final discharge. The effluent will be reused or discharged to Suffering Wash at DP-5, DP-4, DP-3, and DP-2 instead of DP-6 under a valid reclaimed water permit or AZPDES permits. The sludge will be held in the two sludge holding tanks and will be dewatered through a centrifuge.

Increase of flow to 1.5 mgd

The permittee may increase flow to 1.5 mgd by submitting an "other" amendment application including revised figures for financial capability, and a demonstration of financial assurance based on the revised figures.

The facility will be adding an identical 0.5 mgd treatment train to the 1.0 mgd plant. The new 0.5 mgd treatment train will add a fine screen, a bioreactor tank with pre-anoxic, anoxic and aeration zones, a membrane basin for micro filtration, UV disinfection and an effluent storage tank. One more effluent storage tank will be added at the time of total build-out. The sludge will be held in the sludge holding tank. The facility will continue using the Phase II centrifuge to dewater the sludge. The effluent will be discharged to Suffering Wash at discharge points DP-5, DP-4, DP-3, DP-2, and DP-1 under a valid AZPDES permit, or reused. The final disposal of sludge will be to the landfill.

During all phases the sludge, including screenings, grit, and scum, will be hauled to a state-approved landfill for management and disposal. In addition to the APP conditions pertaining to treatment and disposal of sewage sludge, the permittee must also comply with the requirements for sewage sludge disposal, use, and transportation in 40 Code of Federal Regulations (CFR) Parts 257, 258, and 503, and 18 A.A.C. 9, Article 10.

During the initial start-up period, the permittee shall monitor the flow rate according to Section 4.1, Table I. Flow rate shall be measured at the influent pump station. Monitoring under Section 4.1, Table I shall continue until permittee ceases to vault and haul and initiates routine discharge monitoring under Section 4.2, Table IA.

The depth to groundwater at the WRF and near Suffering Wash is estimated at approximately 150 to 200 feet below the ground surface (bgs), and the direction of groundwater flow is toward the south. The WRF is designed and constructed according to plans approved by the ADEQ APP and Reuse Unit.

The site includes the following permitted discharging facility:

Facility	Latitude[1]	Longitude
Willow Springs WRF	32° 42' 51" N	110° 59' 44" W

II. BEST AVAILABLE DEMONSTRATED CONTROL TECHNOLOGY (BADCT)

The WRF is designed to meet the treatment performance criteria for new facilities as specified in A.A.C. R18-9-B204.

Odor, Noise, & Aesthetic Controls, and Setbacks: The permittee has provided a 350 foot setback from the nearest adjacent property line which is appropriate for the Phase I plant at 0.1 mgd with no noise and odor control.

The WRF will meet the required setback of 350 feet for the full build-out WWRF design capacity of 1.5 mgd with full noise and odor control.

III. HYDROGEOLOGIC SETTING

Geologic Setting

The site is located within the Tucson Active Management Area (AMA), and is in the Basin and Range Physiographic Province of southern Arizona. The basin and range province is characterized by broad, gently sloping alluvial basins separated by north to northwest trending fault Black Mountains.

The lithology encountered at the site through soil borings includes weakly to moderately lithified alluvial sediments to approximately 584 feet below ground surface (bgs), with caliche layers

[1]All Latitudes and Longitudes in this permit are listed as NAD 27 coordinates. Per the USGS 7.5 minute map of Coolidge, shift 3 meters south and 6.3 meters east to convert from NAD 27 to NAD 83 in this area.

encountered in the upper 40 feet bgs. In general, the alluvial sediments are coarse-grained and consist of mostly sandy gravel. Granite bedrock occurs at approximately 580 feet bgs.

Groundwater Information

The depth to groundwater at the WRF and near Suffering Wash is estimated at approximately 150 to 200 feet bgs, and occurs in the coarse-grained alluvial sediments. Groundwater wells located approximately 0.1 to 0.6 mile south of Suffering Wash have measured water levels in the range of 229 to 345 feet bgs. Groundwater flow is to the south. The projected DIA, based on groundwater modeling, extends approximately 1.75 miles south and 2.5 miles west of the South Village property. The application indicates that the projected groundwater recharge mound, will have little impact on the overall gradient across the site. Wells located within the estimated DIA include three South Village property wells, four stock wells, two cathodic protection wells for an underground high pressure gas line, one utility well, and a well that was completed in the vadose zone to a depth of only 100 feet.

Three exploration wells were drilled for characterization of geology and hydrology for the South Village Property. The wells are located south and southeast of the WRF. Groundwater quality from one of these wells indicated that none of the constituents tested exceeded an Aquifer Water Quality Standard (AWQS). Approximately six production wells for the housing development will be installed at a future date, with a planned production rate of 1.8 mgd. The groundwater withdrawals planned for the subdivision are estimated to reduce the size of the DIA, and would likely have a larger effect on groundwater levels and flow directions than the groundwater recharge mound at Suffering Wash. The permit contains a provision to re-evaluate the location of the Points of Compliance (POCs) and the DIA, within one year of bringing one or more production wells on-line.

There are (5) potential discharge points to Suffering Wash (DP-1 through DP-5), and one temporary discharge point (DP-6). During the initial phase of the WRF, excess effluent (0.1 mgd) will discharge to Suffering Wash at discharge point DP-6 in quantities which exceed the reuse demand under a valid AZPDES permit. As the WRF is expanded in future phases, discharge to Suffering Wash will occur at DP-05 and DP-04 under a valid AZPDES permit. Discharge under this phase of expansion may extend to DP-3, DP-2, and DP-1; however the implementation of DP-1 as a discharge point may be delayed until the final build-out at 1.5 mgd. POCs have been designated at each discharge point to Suffering Wash. Groundwater monitoring will be required upgradient from discharge point DP-6, at POC-4 to establish ambient groundwater quality. POC-4 will require compliance groundwater monitoring once discharge to DP-4 and/or DP-5 exceeds flow of 250,000 gpd averaged over 90 day period. Groundwater monitoring at the other discharge points (DP-1, DP-2, DP-3, and DP-6) may be required as part of the WRF expansion (if flows exceed 250,000 gpd averaged over 90 day period at any discharge point) or as part of a contingency action specified in the permit.

IV. STORM WATER/SURFACE WATER CONSIDERATIONS

The site is within the Upper Santa Cruz Sub-basin and the Santa Cruz Watershed. Two principle ephemeral stream channels run through and drain the main parcel of the Willow Springs development: Suffering Wash, which extends east to west along the southern portion of the property, and the Tipperary Wash, which runs from the northeast to the southwest part of the

property. The Tipperary Wash joins Suffering Wash approximately 0.5 miles west of the development.

There are no official designated 100-year Federal Emergency Management Agency (FEMA) flood maps for this area. The 100-year flow limits for the surface water tributaries for this area were determine by Wood, Patel & Associates, Inc., and are estimated to extend to within 50 feet of the WRF property boundary. The facility has conducted a drainage study and submitted a drainage report, which was approved by the county. Based on the drainage study, the facility has shown that it is outside the 100 year flood limit. The facility will be constructing rip rap channels to divert the flows and will be constructing a storm water retention pond. The drainage report shows that the facility will not be impacted by the 100 year flood event.

V. COMPLIANCE WITH AQUIFER WATER QUALITY STANDARDS

The effluent will meet the treatment performance criteria for new facilities as specified in R18-9-B204; therefore, aquifer water quality standards are not expected to be violated at the designated points of compliance.

Ambient Groundwater Quality

Ambient groundwater monitoring is required at POC #4. The applicant will install a monitoring well at POC #4 to collect groundwater samples (see Section 3.0, Compliance Schedule, in the permit). Eight (8) consecutive months of groundwater sampling must be completed to establish existing ambient groundwater quality conditions, for use in evaluating any short-term or long-term changes in water quality. Each monthly groundwater sample shall be analyzed for the parameters listed in Section 4.2, Table II.

Monitoring and Reporting Requirements

To ensure that site operations do not result in a violation of Aquifer Water Quality Standards at the point of compliance, representative samples of the effluent will be collected downstream of the UV disinfection unit. The permittee will monitor the effluent every day for flow rate, daily for fecal coliform, monthly for total nitrogen, quarterly for metals and indicator parameters, and semi-annually for organic compounds (see Section 4.2, Table IA in the permit).

To ensure that site operations do not violate the Reclaimed Water Quality Standards for the beneficial use of Class A+ reclaimed water, the permittee will monitor the reclaimed water downstream of the UV disinfection unit as indicated above. The permittee will monitor the reclaimed water daily for fecal coliform, flow rate, and turbidity, and monthly for total nitrogen. (see Section 4.2, Table IB, in the permit).

Facility inspection and operational monitoring will be performed on a routine basis (see Section 4.2, Table III in the permit).

Points of Compliance (POCs)

The Points of Compliance (POCs) are located in the upper aquifer at the following locations:

POC	Descriptive Location	Latitude	Longitude
POC-1	Southwest of DP-001at Suffering Wash	32° 42' 32" N	110° 57' 47" W
POC-2	Southwest of DP-002 at Suffering Wash	32° 42' 39" N	110° 58' 14" W
POC-3	Southwest of DP-003 at Suffering Wash	32° 42' 39" N	110° 58' 30" W
POC-4	Southwest of DP-004 and DP-5 at Suffering	32° 42' 37" N	110° 59' 22" W
POC-5	Southwest of DP-006 at Suffering Wash	32° 42' 29" N	110° 59' 51" W
POC-6	Southeast of the WRF	32° 42' 43" N	110° 59' 50" W

ADEQ has reviewed and approved six POC locations for the entire build-out of 1.5 mgd. The POCs are POC-1, POC-2, POC-3, POC-4, POC-5, and POC-6. POC-4 is included in this permit for conducting ambient groundwater monitoring. POC-6 is a theoretical point of compliance for the WRF. POC-1, POC-2, POC-3 and POC-5 are future well locations to be installed when flow exceeds 0.25 mgd averaged over a 90 day period at corresponding discharge points. These POC locations will be added based on the addition of additional discharge points.

Ambient groundwater monitoring at POC-4 (upgradient of DP-6) shall be required in accordance with Table II of this permit. The POC well shall be installed in accordance with conditions stated in the Compliance Schedule, Section 3.0.

The Director may amend this permit to require installation of wells and initiation of groundwater monitoring at the POC or to designate additional points of compliance, if information on groundwater gradients or groundwater usage indicates the need.

VI. COMPLIANCE SCHEDULE

Description	Due by:
The permittee shall submit a signed, dated, and sealed Engineer's Certificate of Completion in a format approved by the Department that confirms that the facility is constructed according to the Department-approved design report or plans and specifications, as applicable.	Prior to discharging under this permit and within 90 days after completion of construction.
Notification of cessation of vault and haul.	Within 15 days after the date of the cessation of the vault and haul activity or within 15 days after the first day when flow exceeds 7,500 gpd, whichever comes first.

Installation of POC- 4: The permittee shall install a groundwater monitoring well at POC-4. The geologic and well construction logs must be submitted. The log must include the ADWR registration number, the "as built" plan and cadastral, and latitude and longitude coordinates for the well.	Require the installation of POC-4 before the discharge to the wash begins.
Begin ambient groundwater monitoring and conduct at least eight rounds of sampling for all parameters listed in Table II	Within 30 days of installation of POC #4.
Ambient Groundwater Monitoring Report for POC-4: The permittee shall submit an Ambient Groundwater Monitoring Report to the Groundwater Section along with a request for an other Amendment to the permit. The permittee shall propose ALs and AQLs based on statistical evaluation of eight monthly rounds of groundwater monitoring to set the AQLs and ALs listed in Table II.	Submit the ambient groundwater monitoring report at the same time when an amendment is submitted to increase flows beyond 0.1 mgd.
Flow increase to 1.0 mgd is permitted upon approval of an other amendment	Submit an other amendment prior to any flow increase beyond 0.1 mgd. Discuss closure of treatment units in Phase I.
Flow increase to 1.5 mgd is permitted upon approval of an other amendment	Submit an other amendment prior to any flow increase beyond 1.0 mgd

VII. OTHER REQUIREMENTS FOR ISSUING THIS PERMIT

Technical Capability

The Willow Springs Utilities, LLC has demonstrated the technical competence necessary to carry out the terms and conditions of the permit in accordance with A.R.S. § 49-243(N) and A.A.C. R18-9-A202(B). The WRF was designed as per the design report prepared and stamped, dated and signed (sealed) by Brain P. McBride P.E. (Professional Engineer), of McBride Engineering Solutions, Inc., dated January 26, 2007, and subsequent sealed submittals that served as additions to the design report.

ADEQ requires that appropriate documents be sealed by an Arizona-registered professional engineer under A.C.C. R 18-9-B202 (A). This requirement is a part of an ongoing demonstration of technical capability. The permittee is expected to maintain technical capability throughout the life of the facility.

Financial Capability

The permittee has demonstrated financial capability under A.R.S. § 49-243(N) and A.A.C. R18-9-A203. The permittee will be required to maintain financial capability throughout the life of the facility. The estimated dollar amount demonstrated for financial capability is $30,500.00. The financial capability has been demonstrated through A.A.C. R18-9-A203(C)(5).

Zoning Requirements

The Willow Springs WRF has been properly zoned for the permitted use and the permittee has complied with all zoning ordinances in accordance with A.R.S. § 49-243(O) and A.A.C. R18-9-A201(B)(3).

VIII. ADMINISTRATIVE INFORMATION

Public Notice (A.A.C. R18-9-108(A))

The public notice is the vehicle for informing all interested parties and members of the general public of the contents of a draft permit or other significant action with respect to a permit or application. The aquifer protection program rules require that permits be public noticed in a newspaper of general circulation within the area affected by the facility or activity and provide a minimum of 30 calendar days for interested parties to respond in writing to ADEQ. The basic intent of this requirement is to ensure that all interested parties have an opportunity to comment on significant actions of the permitting agency with respect to a permit application or permit.

The public notice for this permit was published in the Eloy Enterprise on October 14, 2010 under public notice no. 12-11.

Public Comment Period (A.A.C. R18-9-109(A))

The Department shall accept written comments from the public before a significant permit amendment is made. The written public comment period begins on the publication date of the public notice and extends for 30 calendar days. After the closing of the public comment period, ADEQ is required to respond to all significant comments at the time a final permit decision is reached or at the same time a final permit is actually issued.

Public Hearing (A.A.C R18-9-109(B))

A public hearing may be requested in writing by any interested party. The request should state the nature of the issues proposed to be raised during the hearing. A public hearing will be held if the Director determines there is a significant amount of interest expressed during the 30-day public comment period, or if significant new issues arise that were not considered during the permitting process.

IX. ADDITIONAL INFORMATION

Additional information relating to this permit may be obtained from:

Arizona Department of Environmental Quality
Water Quality Division - Groundwater Section - APP and Reuse Unit
Attn: Swathi Kasanneni
1110 West Washington Street, Mail Code 5415B-3
Phoenix, Arizona 85007
Phone: (602) 771-4577